## **Effects of 2011 Presidentially Declared Disasters and Recovery Needs**

In 2011, Pennsylvania was impacted by three declarations of Presidential Disaster Areas, including two major storm systems within 12 days of each other.

## April Storms (Designation in July 2011)

The first designation occurred due to severe storms and flooding during the period of April 25-28, 2011, which impacted five counties in the northern tier of Pennsylvania near the New York border. These counties received aid from the Federal Emergency Management Agency (FEMA) to support public facility/infrastructure damages and the Commonwealth's and local response efforts.

#### Hurricane Irene

Pennsylvania was impacted by Hurricane Irene beginning late on Friday, August 26, 2011 with scattered rain showers across the Commonwealth. High winds and heavy rain associated with the very outer bands of Irene moved into the Commonwealth during the early morning of August 27, 2011. The main heavy rain shield associated with Irene moved into far Southeast Pennsylvania and continued throughout August 28, 2011. Some areas of the Commonwealth received in excess of five inches of rain over this 36 hour period. These excessive rain amounts caused major to catastrophic flash flooding in some areas of the Commonwealth. Widespread road flooding was reported, with numerous water rescues of stranded residents. The designated area included all counties bordering New Jersey and several in the Northeast Pennsylvania.

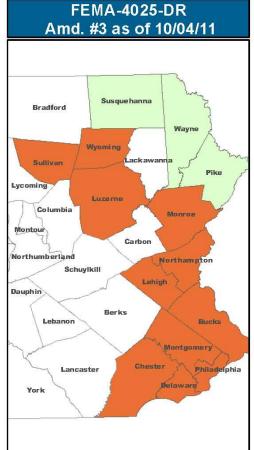
### **Tropical Storm Lee**

Tropical Storm (TS) Lee began impacting Pennsylvania on the evening of Tuesday, September 6, 2011. Statewide rainfall total of 5.5 to 15.37 inches fell over the first 48 hours of the storm. The entire Commonwealth received above average rain fall over the previous 30 days, and the streams were all running high as a result. The remnants of TS Lee were absorbed by a large scale extra-tropical low centered in Central Ohio.

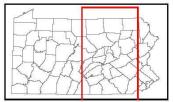
TS Lee left significant amounts of water over almost all of the eastern two-thirds of the Commonwealth, affecting the Delaware and Susquehanna River basins. Almost every town along the Susquehanna River experienced flooding including Athens, Towanda, Danville, Bloomsburg, Wilkes-Barre, Sunbury, Harrisburg and Marietta, as well as smaller communities in Lebanon, Lycoming, Schuylkill and Wyoming counties.

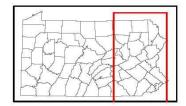
At the height of the response effort, there were 36 shelters open with 908 occupants. The Commonwealth has nearly 45,000 miles of rivers streams, nearly 30 waterways within that system were at or near record flood levels.

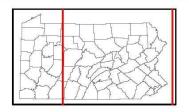
#### FEMA-4003-DR as of 11/15/11 Susque hanna Bradford Tioga Potter Wyomi ng Lackawann Sullivan Lycoming Clinton Luzerne Columbia Montour Union Carbon Centre Northumberland Schuylkill Lehigh Mifflin Juniata Berks Dauphin Perry Lebanon ☐ Harrisburg Cumberland JFO-Lancaster Chester Franklin) York Adams















# **Designated Counties**



✓ JFO

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